DOCUMENT RESUME

ED 364 077 FL 021 607

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TITLE Takaaki Talking: A Case Study of Infant Language Acquisition in a Bi-Lingual Bi-Cultural Home.
PUB DATE [93]
NOTE 57p.; Masters Thesis, Teachers College, Columbia University.
PUB TYPE Dissertations/Theses - Masters Theses (042)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Bilingualism; Case Studies; *Child Language; *Cultural Pluralism; English; English (Second Language); *Family Environment; Foreign Countries; *Grammar; Instructional Effectiveness; Japanese; *Language Acquisition; Language Patterns; Oral Language; Second Language Instruction; Toddlers
IDENTIFIERS *Japan

ABSTRACT

This study investigated patterns of acquisition of English and Japanese by a toddler, aged 16-23 months, living in Japan. The child's mother and father are British and Japanese, respectively. The focus of the study was on early grammatical morpheme and transformational rule acquisition as demonstrated in the child's utterances. The study is accompanied by charts of transcribed utterances, and these data are analyzed within the framework of recent language acquisition theory and research. Analyses of sound-meaning and meaningfulness, the ineffectiveness of overt instruction on the child's speech production, morpheme acquisition patterns, and acquisition of certain transformations are reported. Results indicate that regular past tense forms were frequently produced at an early age, in comparison with other English morpheme acquisition studies, but that articles usage appeared to be delayed, possibly due to Japanese deictic acquisition order. Stages for negation, interrogatives, and pronominalization appeared to follow patterns observed by other researchers. Sound-meaning association, movement/change, and meaningfulness appear, in general, to be confirmed as key factors determining when acquisition will occur. Pedagogical implications are discussed. (Author/MSE)

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Takaaki Talking

A Case Study of Infant Language Acquisition in a Bi-lingual Bi-cultural Home

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Department of Languages, Literature and Social Studies in Education:
M. A. Program in TESOL
Summer 1993 Graduation

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Abstract

The language acquisition of the author's son, of Anglo-Japanese parentage and living in Japan, was studied between the ages of 16 and 23 months, in order to collect firsthand data which could then be examined in the light of recent language acquisition theory. The focus is on early grammatical morpheme and transformational rule acquisition, as demonstrated in the boy's actual utterances.

Although the study is biased towards the learning of English, largely because more published information is available for that language, the tables of data collected show that there was a good deal of production in Japanese, too, as time progressed, and certain effects of this bilingualism on the acquisition orders/patterns for English are posited.

In comparison with morpheme acquisition order studies for English as a first language, with monolingual subjects, it is noted that examples of regular past tense forms were frequent at quite an early stage. Article usage, on the other hand, appears to be delayed, possibly due to the influence of Japanese deictic acquisition order, which is also considered as one of the factors in preposition acquisition. The stages of development for *negation*, *interrogatives*, and *pronominalization* appear to follow the patterns observed by other researchers, although there is evidence here for Japanese first language acquisition that is scarce in the literature.

Sound-meaning association, movement/change and meaningfulness appear, in general, to be confirmed as key factors determining when acquisition will occur.

Conclusions are discussed in terms of pedagogical implications for ESL/EFL classrooms.

A brief biography

As general background for the reader of this study, I thought I should provide a little biographical data on the subject, my son Takaaki Ihata.

Takaaki was born on March 18th, 1991, and so is now approaching his second birthday. I am British, from the central part of England, known as the Midlands. His father is Japanese, born and raised in Tokyo. Takaaki was born in Tokyo and has lived all his life so far here, next door to his Japanese grandparents. He has twice visited England during this time, although as he was only three and a half months old the first time, it is doubtful if this had any effect on his language learning. At the time of the second visit, he was twenty-one months old and there does seem to have been some effect on his development in this case, even in one week.

As for his general learning capacity, he is naturally very inquisitive and appears to learn quickly. From observation of his powers of deduction, employed in circumventing baby-proof locks, container lids and all parental attempts to place dangerous or valuable objects out of harm's way, we believe him to be of at least average intelligence. No objective test of this has been done, however.

Physical development may be related to early language acquisition in terms of its effect on perception. Takaaki is taller and stronger than most children of his own age and, while this might sometimes mean that he expends time and energy on physical activity at the expense of the cognitive, it also means that he can often match mental inquiry with physical investigation. This might also be aided by the fact that he seems to have quite keen powers of sight and hearing, which widen other horizons.

He spends his days almost entirely in the company of adults. I have been able to spend most time with him during school vacations, which may have affected his early production of English. We have no other children and there are few opportunities for him to interact with other small children.

Conventions and layout of transcribed examples

I have chosen to present the speech samples in table form for three basic reasons; it allowed me to order them in clear chronological sequence so that any development over time might be more easily perceived, contextual information (including non-verbal behaviours where relevant) could be placed alongside the speech to give the reader more 'instant' access to almost the whole speech situation, and finally to provide for an initial analysis of the utterances, in very broad terms.

The column headings are those used by Dr. Steinberg [1] to present similar examples of child speech, although I have adopted a broader system of categories in the two right-hand columns as my samples are not simply listed as examples of one particular form or type of utterance.

Contextual information and non-verbal behaviours are enclosed in round brackets.

Where two interpretations of an utterance are possible, they are both given, separated by an oblique stroke/.

The speech is transcribed in standard English orthography, although where pronunciation was sufficiently deviant to warrant it, I have attempted to show this orthographically (for example, *joosh* for *juice*). Utterances in Japanese are transcribed in the standard romanized form, *ro-ma ji*.

The format for the reference section is taken from *Language Sciences*, published

by Pergamon Press plc, Oxford, U.K. I prefer this format for ease of reference. The prominence accorded to author and date, and the separation of titles from this information, appeal more to the eye than the generally-preferred *APA* format and are an aid to rapid scanning, I believe.

The following is a list of additional symbols or conventions used.

?	Used to indicate doubt concerning the semantic purpose of an utterance.
(?)	Used in cases of uncertainty as to the semantic relations expressed or implied in an utterance.
italics	Used to indicate those utterances, or parts of utterances, spoken in Japanese.
_____	Underlining. Used to indicate the child's utterances and their more standard English equivalents.
*	Used to indicate utterances containing a mixture of English and Japanese.
•	Signals utterances which are single words.
D	Stands for the child's father (Japanese).
M	Stands for the child's mother (English).
T	Used occasionally in conversational extracts to indicate the child.

N.B. I have not always given translations of example utterances which are quoted in the text. If needed they can be found by referrring to the tables, under the dates given.

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[1]Steinberg,D.D. (1982) *Psycholinguistics* , p.152

' ~a mere record of the first use of a certain word is very misleading; psychological analysis of the meaning behind the form is imperative.' [2]

Introduction

This quotation, in itself, symbolizes for me the unexpected and, at times, apparently disconnected process which has led me, finally, to the writing of this paper - in many ways so different from my original intentions. Given the study that I have decided on, Leopold should have seemed an obvious place to start, and yet his work is among my more recent readings. I ended up working my way back to him, through the collecting of my own data, analysing it and looking for explanations. Yet perhaps it has been for the best, an earlier contact with this great linguist's overwhelmingly detailed and precise record of his daughter's acquisition of English and German, with its emphasis on the need for scientific accuracy, phonetic transcriptions and stern strictures against the making of unfounded generalizations, would almost certainly have discouraged me from my infinitely more modest undertaking.

Takaaki Talking[3] derives ultimately from my interest in certain ideas presented to the class by Dr. Danny Steinberg, during the autumn 1991 session of 'Psycholinguistic Dimensions of Second Language Acquisition' in the Teachers College (Columbia

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[2] W.F.Leopold, *Speech Development of a Bilingual Child : a Linguist's Record* , (Evanston,Ill. 1939-1949) (This sentiment finds expression throughout the work). Such analysis requires fairly intimate knowledge of the child's day to day life.

[3] A primitive version of this paper, covering data up to October 1992, was published in Vol.25 of *The English and American Literature Journal* of Musashino Women's College in January 1993, under the title 'Observations of Infant Language Acquisition in a Bi-lingual/Bi-cultural Home Environment - A Psycholinguistic Approach'.

University) MA in TESOL program in Tokyo. Inevitably, a discussion of second language acquisition concerns language and language skills learning as a whole and it was the relevance to acquisition of first language skills that mainly interested me then. My son, Takaaki, was seven or eight months old at the time and I was initially inspired by the remarkable results that Dr. Steinberg had obtained in teaching reading to very young children, so that *Takaaki Talking* might have been *Takaaki Reading*, I suppose.

The course, fortunately, brought together many different areas of thinking and I was provided with ideas for an alternate approach when practical problems forced me to abandon attempts to teach reading, at around one year old (the chief one being the subject's incorrigible habit of removing and chewing the name cards affixed to room objects). Instead, I decided to pay closer attention to his speech development[‘] and observe whether, in fact, it would conform to models advanced in certain theories of child language acquisition which appealed to me as entirely reasonable ideas in their suppositions concerning first language acquisition, and as possibly having quite useful applications in second or foreign language teaching.

The fact that Takaaki was exposed to two languages, English and Japanese, from his earliest days is a factor which I believe may have some bearing on the process of any language learning that occurs, and I am interested to see what effect will be produced, if any. He is bound to be exposed more to Japanese than to English as time goes on, if we continue to reside in Japan, even if his father and I do make efforts to provide him with as much English input as possible in the family. The influence on his babyhood of his beloved Japanese grandmother has been profound, and tele-

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‘ Although I mention only 'speech' development, I made some observation of comprehension as well as production, particularly in the earlier stages of production. As my title implies, I later dwell rather more on production both because it is easier to assess and gives an indirect measure of comprehension, and because it allows us to perceive similarities or differences in the development of the two languages.

vision recently affects him almost as much (he is nearly two years old now). But these are likely to reveal their impact on his linguistic development in the future, and so I shall refer to them in this study only where they appear to have played a significant part in determining the course of such development up to the time of writing (March 1993).

Given restrictions of time and resources available, it seemed best to concentrate on the two-word plus utterance stage, i.e. the *telegraphic* and *morphemic-transformational* stages, and on those aspects which most interested me, and to relate them to other areas of linguistics or psycholinguistics as appropriate. Although I began recording data prior to the two-word stage, and have selected [5] what seemed suitable as background information on my son's language or language-related behaviours in general, the longer utterances were necessary for most of the observation I intended.

I was particularly interested in the theory of a natural, invariable sequence of acquisition for grammatical morphemes (Brown, Roger: 1973 and de Villiers, J. G. & de Villiers, P. A.: 1978), and the regularity, across languages, for the acquisition of trans-formations such as *interrogation* and *negation* (Bellugi-Klima, U.: 1968). More general concepts that I was also keen to observe first-hand were the apparent need for speech sounds to coincide with perception of objects, events or situations in the immediate environment for language learning to take place, and the ineffectiveness of correction on grammatical accuracy.

Procedure

As I found it impracticable to use a micro-cassette recorder with Takaaki, who had already formed a close attachment to the cordless telephone in our home and responded immediately to the new device as another example of the same thing, resulting in any attempt to engage him in conversation terminating with his efforts to communicate through it, (a typical example of this being, "Hallo! Hallo! *Baachan! Mochi*,

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[5] These earlier data are presented, with comments, in Table 1 (a) and, to some extent, in Table 1(b).

mochi! Baachan! " [6]). I decided to record novel or interesting utterances in writing on small cards. I wrote down almost everything he said at first, of course. I also got into the habit of making some brief note of the situation in which the utterance was produced, the date and, especially later on, of the conversational context in which it occurred. This proved very important later when I was ordering the data for a preliminary analysis in September, 1992, when Takaaki was about 18 months old, as it allowed me to see the relevance of context and any chronological progression. I was also able to re-assess the significance of some utterances, as the apparent psychological meaning behind them became clearer to me. Disadvantages also have to be considered and the main failings of this method appear to be; the lack of information on prosodic features such as intonation, and the fact that I neglected to note down later occurrences of certain grammatical morphemes, once I felt that they had become fairly frequent. [7]

I have arranged the data in table form mainly for easy reference, as entries are arranged in chronological order and the accompanying columns of brief analysis make it possible to skim through in search of particular points or categories of utterance fairly quickly. Another feature of this arrangement is that, by simply adding 'Context' to the second column along with 'Probable Mature Speaker Equivalent' in English, the situational/contextual information necessary for an interpretation of an utterance appears alongside the utterance itself, which is I hope a convenience for both the reader and myself. It makes the discourse context immediately accessible

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[6] *Baachan* was Takaaki's form of *obaachan*, in which *o* is a respect marker and, for anyone other than a very small child, to drop it is to be very disrespectful. *Mochi, mochi* was Takaaki's corruption of *Moshi,moshi*, the usual Japanese telephone greeting, equivalent to English 'Hello'.

[7] One very obvious example is the lack of later instances of a regular plural *-s*, although this seemed to be produced fairly reliably from November 1992 on.

and frees me to consider the 'bigger picture' in the following pages.

Observations

Sound-meaning and Meaningfulness

Where to begin a study of a child's *language* acquisition is not a simple matter.

> "Children can be said to have learned to say their first word when they are able to utter a recognizable speech form in conjunction with some object or event in the environment. The speech form may be imperfect,.....and the associated meaning may be incorrect,.....but as long as the child uses the speech form reliably (the sound-meaning association does not occur by chance), it may be concluded that the child has acquired some sort of word knowledge." [8]

Leopold and others [9] have resolved the main problem by starting with the very first *sounds* uttered, and recording practically every syllable until they felt confident that the moment when a speech form was used "reliably" had arrived. This event is more commonly recorded as 'Baby's first word' but, as the Steinberg quote indicates, it is not as straightforward as generations of parents might lead one to believe. From babbling to speaking is often not a sudden step; it may be that it seems so because most parents are not terribly attentive to their infant's babbling until *they* happen to notice that he/she has managed to say something meaningful. From my own experience, I believe that this could be as much as a week after the child has actually achieved its first intentional sound-meaning association. In Takaaki's case, we concluded that he had reached this stage at about 11 months, with the totally unexceptional 'da-da' for 'daddy', although in terms of being produced reliably in conjunction with the object/referent in the environment, 'tea' was a strong contender. His pronunciation of this word involved a peculiar initial consonant, somewhere between *dz* and *ch* , which neither of us could imitate.

This would seem to lend credence to the theory that 'meaningfulness' or function-

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[8] Steinberg, *op.cit.*, p.149-150.

[9] Leopold, *op.cit.* and Fantini,A.E., *Language Acquisition of a Bilingual Child, A Sociolinguistic Perspective*, (1985) for a good recent example of such work. — 5

al importance of sounds or words is what influences the order in which they tend to be learnt, and that apparent difficulty in producing them is not always a bar to their acquisition, so long as they are perceived as useful to the child. 'Useful', of course, to the child for his/her immediate purposes, which may not be so immediately obvious to adults. Although linguists have long been aware that it appears to be a " psychological fact that we learn with comparative ease the names of concrete things, qualities, and actions, and with comparative difficulty the names of things which are not present, qualities that are not visible, and actions which we do not see performed ",[10] still the individual child's real-life ability to learn that which as adult speakers we perceive as difficult for them can be a surprise.

In modern times, it is quite common for *car* to be among the earliest words a child produces, apparently directly relate to the importance of the car in daily life, an importance we adults overlook. From this perspective, it is not at all surprising that Takaaki's first two-word utterances included this item of vocabulary.[11] (It was, in fact, one of his first words). He went out in the car every day and was fascinated by the movement of other vehicles around us. This, coupled with his father's love of the automobile and its more exotic manifestations, led to him not only learning the names for the various types of vehicle he could see, (*bus, van, jeep, truck* , etc.), but also to identifying and naming particular models/makes by the age of about 18 months (*Crown, BMW, Porsche, Mercedes* - although his pronunciation of the last made it unintelligible to outsiders). It was not the case that he happened to hear these words in conversation more than others, rather the reverse. The explanation for his efforts to learn and produce evidently difficult, arcane vocabulary seems to have been his overwhelming interest in this area and 'need' to have the names of these things so that he could talk about them, or at least draw

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[10] H.E.Palmer,(1917) *The Scientific Study and Teaching of Languages*, p.87-88.

[11] See Table 2 (j), next to 'approx. 16 mths', for these utterances.

others' attention to them. Animals were his other great fascination at this time; he could name various species of monkey. Moving things seemed to stimulate his learning.

The purely functional importance of words affecting their learning was well-represented in Takaaki's early use of *mamma* and *ne-ne* , in Japanese, for 'food ' and 'sleep ', *milk* , *Daddy* and *Baachan* , 'Grandma '. Whether because of my too frequent absence from the home in his early talking days, or confusion with the Japanese word for food, I am not sure but *Mummy* or *Mum* took him quite a lot longer to produce. He began with something like *Mama*, then once or twice said *Momma* while I was bathing or dressing him, and by the time he was walking confidently, at 14-15 months, had settled on the interestingly nasalized *Mun* . It was quite something to return home from work and be greeted by a loud joyful *Mun* ! yelled from the top of the stairs.

The role of emotion in infant language acquisition appears to be a complex one, and I wonder if Mowrer's theory [12] of the child repeating over and over what he has heard because the words recreate for him the presence of the loved one might go some way towards explaining Takaaki's marked tendency to encode all references to his grandmother or grandfather (Japanese) in Japanese. This is an excellent instance of the need for a psychological analysis of the meaning behind the form; it is in fact a trend I have only become aware of very recently, as I was re-reading my tables attempting to understand the significance of language choices made. Had he been entirely monolingual, his use of the language he heard from his grandmother might not have been detectable whereas it seems quite clear that he is using her language whenever he thinks of her, or wants her to appear. (In very recent observation, there is some evidence that he is beginning to distinguish the two languages and to consider his audience when selecting one or the other. Leopold made the same observation of his daughter, Hildegard, at the very end of her second year.) The wistful sounding

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[12] See Rivers (1964), *The Psychologist and the Foreign Language Teacher*, p.186-187 for a summary of the ideas of Mowrer and Osgood on this point.

konai? (July '92), *kuru na ?* (Sept. 1 '92), *Baachan ka na ?* (Sept. 10 '92), *nai ne ?* (Sept. 27 '92), and *konakatta ne ?* (Oct. 8 '92) [13], all associated with her, seem relevant here. They may be indicative of a deeper layer to the sound-meaning association involved in learning the meanings of words, although it is also true that they are all examples of interrogation, which he was then acquiring in Japanese.

Effect of Instruction or Correction

The power of meaningfulness or ' needfulness ' to influence children's speech production can be appreciated still more when it is contrasted with deliberate attempts to teach words or longer expressions, or to correct their pronunciation. When Takaaki was about 14 months old, and we had grown frustrated at the lack of success of our attempts to get him to produce anything more than his usual one-word 'phrases', he quite spontaneously produced an example of communication that we had believed him quite incapable of, and that was certainly not imitated from among the model utterances we had tried to teach him. It was the phrase ' bad boy ', something he must have heard many times after he started walking, at one year, and became able to reach things on the table etc. We had not noticed that we used it particularly often, but one day he came into the kitchen where I was sitting and said, *Mun. Ba bo.* (= 'Mummy Bad boy. '), and made me understand by looks and motion in that direction that he was drawing my attention to something he had done in the bedroom. I followed him and found that he had managed to pull the waste paper basket down from the top of a small cupboard where we had placed it, hopefully out of his reach, and had then scattered the contents all over the bedroom floor. He had obviously heard the words often enough previously for them to be available in his memory, and he had apparently had sufficient exposure to the contexts in which Mummy or Daddy uttered the words 'bad boy' for him to understand that they were appropriate in this case. (See p. 28)

The context, both in terms of the emotional element in these word-meanings with

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[13] 'Isn't (she) coming ?', '(She)'s coming, isn't she ?', 'Is that Grandma ?', '(She) isn't here, is she ?', '(She) hasn't come, has she ?' - respectively.

their probable association with fear in Takaaki's mind, and the physical situation in which they were uttered, were, I believe, important for the production of these sounds and their success in communicating the message he seems to have intended them to. He was probably frightened, and this appears to have been a strong enough motivation for him to produce an utterance longer than he was normally capable of at this time. His need to get a meaning across to me, perhaps in the hope of obtaining reassurance, accomplished easily what all our expenditure of energy had failed to.

Pronunciation is an area in which we found this seeming ineffectiveness of instruction even more noticeable. Corrections did not appear to reduce the amount of time taken to progress from initial imperfect, but more or less understandable, enunciation of some word to adult-like pronunciation. Takaaki pointed out ' beik 's (rhymes with 'cake ') for several months and never wavered once, even though my husband or I corrected him with 'bike ' every time he said it. It might be argued that this is possible evidence of him not hearing any difference between /ei/ and /ai/. I cannot really accept that as the explanation because I can easily call to mind examples of words, containing one or the other of these sounds, with which he never seems to have experienced any difficulty; *face, eye, play, cry.* I think it is more likely that the phonetic combination in this particular word /b/ + /ai/ + /k/ was on one that he could not at that stage sufficiently control the various articulators (lips, tongue etc.) to produce. The idea was later re-inforced by the observation that 'rice ' was treated in the same way as 'bike ' - it appeared that the /ai/ sound was only correct in a final position. That he was able to adapt his articulation of word sounds by himself, so that they more closely approximated our models each time could be observed with such expressions as 'Thank you. ' It improved a little almost every time he said it, although drilling at any one time appeared to have no effect then.

Ineffectiveness - Possible Significance

The examples given above could be supplemented by others, but I feel they are enough to illustrate the point that I want to make before I go on to a more detailed

consideration of the data and how it relates to theories of morpheme and transformation acquisition. The apparent lack of effect on the child's speech production of correction or overt instruction, even when he demonstrated understanding of longer, more complex utterances [14] and the ability to improve enunciation where he felt the need, suggests that the instruction may have been pointless at this early stage, when he had not yet attained the necessary level of competence to analyze and assimilate the information presented in this way. [15] Rather he appeared to progress at his own pace, in accordance with some inner timetable that was not liable to outside influence, unless that take the extreme form of deprivation of linguistic input. [16] I shall not be experimenting with that. This appearance of immutable progression, in the earlier phases of speech production at least, might, I thought, be a reflection of an underlying natural acquisition order. I should, therefore, like to turn now to a consideration of Brown's morpheme acquisition order and the degree of correspondence I can find in Takaaki's development to date, and what factors might be responsible for any deviations. I will then examine his acquisition of transformations.

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[14] Commands such as, 'Put the ball in the bucket,' were clearly understood at the age of about 13 months. The classic test of comprehension, 'Kiss ball.Smell truck.' (in which a novel combination of verb and noun are given to rule out the possibility of the action being performed by chance), held little challenge for Takaaki at this age. He only seemed puzzled when there was no game follow-up to these actions.

[15] See Steinberg, *op.cit.*, p.174.

[16] There is a tendency to assume this would mean shutting the child in a closet, physically isolating it. Speech production, however, can be severely handicapped merely as a result of being excluded from conversational interaction in the early part of its life. I have personal knowledge of one case where a two-year-old, of otherwise normal development, if not great intelligence, was still at the babbling stage, apparently owing to the lack of interaction with his mother; she seemed never to address a word to him.

Acquisition of Morphemes

Takaaki followed the usual pattern for children's early language in his use of mostly nouns, adjectives and verbs, with no inflections for number, person or tense (in English), and a complete lack of function words (articles *a* or *the* for example, or prepostions). As utterance length increased, we should expect to find that these gaps were gradually being filled in. Roger Brown (1973), in a study of three children, found that fourteen of these function words and inflectional morphemes were acquired by all three in a remarkably similar sequence. His study was longitudinal, and there is some controversy as to whether or not the findings of Jill and Peter de Villiers (1973), in their cross-sectional study of twenty-one children, can be taken as corroboration of his results, since they were examining accuracy order which may or may not be the same as acquisition order.[17] The morpheme acquisition order was:

1. present progressive *-ing* (as in *she is running*)
2. preposition *on*
3. preposition *in*
4. plural *-s* (e.g. *cats, books*)
5. irregular past forms (as in *I went, he gave*)
6. possessive *'s* (as in *daddy's chair*)
7. uncontracted copula *be* (as in *I am happy*)
8. articles *a* and *the* (which were classified together)
9. regular past *-ed* (as in *he cried*)
10. regular third person singular *-s* (as in *talks, sings*)
11. irregular third person singular forms (e.g. *he has*)
12. uncontracted auxiliary *be* (as in *he is coming*)
13. contracted copula *be* (as in *she's happy*)
14. contracted auxiliary *be* (as in *he's coming, you're playing*) (Brown (1973))

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[17] Littlewood (1984), *Foreign and Second Language Learning* , p.9-10.

I have only evidence, from data on Takaaki's learning, for the first nine of these,[18] possibly because of his age (he will be two years old on March 18, 1993) and the stage of development he is at, possibly because of one or both of two other factors; the fact that he is acquiring two first languages simultaneously, and the fact that I am a full-time teacher, with less time to interact with him and to observe his progress in English than I would like for a reliable comparison. I will return to a discussion of these factors later. If I were to consider the first appearance only for each item, I do not think it would be very meaningful as quite a long time elapsed in some cases before the form was regularly produced in contexts which require it, or in which a mature speaker would normally employ it. I shall, therefore list the first nine of these morphemes Takaaki acquired, in the order that he seems to have actually begun to control them, with the relevant sets of dates in parentheses.

Acquisition Order for Takaaki (August 1992 - January 1993)

1. present progressive *-ing* (Aug. 23, Sept. 14, Oct. 2, 5 +)
2. preposition *in* (Sept. 30, Oct. 24, 27, 30 +)
3. plural *-s* (Oct. 7, Nov. 1+)
4. irregular past forms (Oct. 10, 24, Nov. 3, Dec. 1, 12, Jan. 10)
5. preposition *on* (Nov. 7, 16, 20, Jan. 10, 16)
6. regular past *-ed* (Sept. 30, Nov. 12, 14, Jan. 24, 28 +)
7. articles *a* and *the* (Oct. 27, 30, Nov. 5, 14, 16, 20, 25 / Jan. 16)
8. possessive *'s* (Sept. 28, Jan. 15+)
9. uncontracted copula (Oct. 8 *(?)*)

The date after the oblique stroke, in 7 (articles *a* and *the*), indicates his first reliably observed use of *a*.

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[18] There is one probable example of the contracted copula *be* , on January 16, 1993, (Table 2 (x v)), *That ('s) dirty.* But it is unique to date.

Preliminary Discussion of Results

I must, of course, stress the tentative nature of this ordering, which the dates alone do not always seem to justify. I have, for example, placed articles after the regular past forms of verbs, although it might seem from the extensive use of articles in November '92 that they were perhaps under his control before *-ed* inflections. However, an examination of Table 2 (x i and x ii) reveals that the linguistic context in which he produced these phonetically reduced forms of *the* was always the same; immediately after a preposition *in* or *on*. A + mark next to a series of dates here signifies that I felt he was continuing to produce these forms fairly dependably after this. The absence of the mark is intended to convey my impression that acquisition of these items is an ongoing process. The uncontracted copula *be* is a case in point. I only have on record this imperfect attempt to produce it, and one example of a similar occurrence of the contracted form, but I remember observing that he did produce more of the former during a Christmas '92 visit to England. That visit, with sudden comparatively intensive English input[19], did seem to influence his production in January 1993, as can be seen from the dates.

He has since undergone his second 'language explosion', (the first ocurred at around 17½ months and appeared to mark the transition to longer utterances), only this time he has transferred the initial fluency breakthrough from English to Japanese. I have been increasingly busy since school began in January, and he has been left in the care of his father or grandmother. Although his father speaks English when he is alone with him, only Japanese is spoken the presence of his grandmother. He has watched more television, also in Japanese, during this period. All this has

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[19] During the week we spent in England, he was often left in the care of relatives of mine who treated him entirely as a monolingual native-speaker of English. Leopold, *op.cit.*, p.93, notes that the copula *be* is "unemphatic and semantically not essential". His daughter produced no form of *be* in her first two years.

perhaps meant that, not only was I not observing him, but also he was interacting less in English than he would have been if I had been present, and this may have had a depressing effect on the development of certain features.

Be that as it may, there are still important inferences to be made from the information that is available to me. I believe that the fact that the first five of these morphemes follow approximately the same pattern as Brown discovered does lend some support to his natural sequence theory. One very interesting thing to note is the early occurrence of regular past *-ed* forms, in comparison with the Brown and de Villiers results. Takaaki acquired regular informal past tense inflections in Japanese about a month earlier, and I feel that this must have had an effect on his English acquisition order - having acquired the underlying rule, he was soon able to apply it to other language data, irrespective of what language was involved. This contradicts the pronouncements of theorists such as Vygotsky, Sapir and Whorf, who held that language shaped thought and that different languages represented entirely different ways of thinking, so that multilingual people "would have difficulty in using the knowledge gained through one language when operating in the other languages, since thought is supposed to be language-specific" [20]. (This is also, incidentally, possible evidence of rule-learning as opposed to mere imitation in speech acquisition).

The emergence of irregular past forms was complicated by the fact that Takaaki used past participles before simple past forms; *done* and *gone* appeared as early as August '92, and *gone* continued to be produced in appropriate contexts (cf. Oct. 9 *Bus gone*, or Oct. 24 *Water 'n baffy..Gone.*) These seemed to disappear again and to be gradually replaced by the simple past irregular from October '92 onwards. The explanation may be that "it is patterns that children are sensitive to"[21], and that,

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[20] Steinberg, *op.cit.*, p.107.

[21] "Early Language Learning", *Encyclopedia of Education* , 1971, p.325

with *done* and *gone* being so superficially similar in sound, he was beginning to perceive some pattern, which proved to be still beyond his capacity to master, and of less functional value than simple past forms. [22]

The delay in production of the preposition *on* deserves some mention, both because it is so obvious (fifth in Takaaki's sequence, as opposed to second in Brown's), and and because it raises the issue of preposition acquisition in general. Takaaki, I believe, had much less use for *on* in his first year and a half or so, than he did for some other prepositions. He is a big child for his age, by both Japanese and English standards, and it seems to me that the prepositions he used earlier were related to his being very active physically; *up* , *down*, *to*, *out* , the first two of which he had already acquired at the one-word stage. He hated to be indoors once he could walk and always wanted to go *out* , *to* the park or somewhere. We live *up* - stairs and going anywhere involves going *down* in order to go *out*side, and from these two familiar words Takaaki fashioned a new adverb of motion *downside* , which was current in his speech at around 18-21 months of age. I only quote this example here because it seems indicative of what was on his mind, the big wide world outside the house, going places *in* the car, running *in* the park or *in* the playground. In short, he had less need for *on* and consequently picked it out from the flow of talk he heard and began to acquire it later than other prepositions. [23]

His English article acquisition may have been influenced by Japanese morpheme acquisition order. Several features appear to be learnt earlier in Japanese than they are in English; negation, emphatics and deictics are among them[24]. A glance at

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[22] Past participles are, in fact, often reported to be the first past tense forms to be used. Cf. Leopold, Vol.3, p.96 ff.

[23] He nonetheless understood it perfectly. He could follow directions to put things on the table or on a chair without difficulty.

[24] C.Pye, "Towards an Anthropology of Language Acquisition", *Language Sciences* Vol.10, No.1, 1988, p.130.

almost any page of the tables will probably reveal some occurrence of *kochi* , a word which Takaaki found extremely useful to indicate places (= here, in here), things or people (= this one/that one, this/that person), and direction (= this way). These were all quite appropriate uses of the word in Japanese, but I think that this 'convenience word' contributed to his lateness in attempting prepositional phrases in English, which would have included an article in most instances in adult speech. A good example of what I mean here is an utterance produced on September 30 '92, at the age of 18½ months, *shorsh kochi in* . Where in English only he would have had to say, "in here" or an approximation of "in *the* cupboard". He persisted in using *kochi* even when he knew English equivalents, and even where he used them, they were the 'this one' or 'this way' variety. Articles were not, therefore, much practised and remain phonetically unsure, even now, due to early deictic acquisition in Japanese, I believe. He had found an extremely meaningful word, which enabled him to express easily functions that might otherwise have required a lot more cognitive effort, and one which he readily acquired because it was also phonologically simple.[25]

This does not necessarily disprove the theory of a natural order of acquisition, as some individual variation is allowed for so long as items normally acquired early do not come late, or vice versa. Articles are listed as eighth in order of acquisition by Brown and seventh (possibly sixth ?) in Takaaki's development, so there is perhaps no great significance in this result. More remarkable in this sense is the acquisition of regular simple past forms, apparently influenced by Japanese order. Hildegard Leopold is reported to have acquired the possessive *'s* one month *before* the regular plural *-s* , a fact which was apparently in no way due to the influence

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[25] I do not intend to contradict earlier remarks here (see p.5-7). I believe that meaningfulness was the prime factor involved, given the broad range of 'meanings' of *kochi* .

of German morphology. [26]

Transformation Acquisition

Factors discussed above may also have contributed their share towards determining his progress in acquiring certain important transformations, in both English and Japanese. I would like to consider three of these and their development as I have been able to follow it to date. They are *negation*, *interrogation*, and *pronominalization*.

Research into the acquisition of negation and interrogation (a form studiously avoided in the literature, possibly because of unpleasant associations, but one which I shall use for convenience), has shown that there appear to be fairly consistent patterns for both. [27] In Takaaki's case, however, it will be necessary to consider the possible effects of his bilingualism on these patterns, too. One thing to be aware of from the outset, for example, is that negation is reported to be acquired relatively early in Japanese [28] and that one should avoid assigning child prodigy status too easily !

Negation appears to be acquired in three stages, although there is some evidence that children do occasionally skip the first. In the first stage, the negation marker *no* or *not* is placed at the front of an affirmative utterance (*Neg.+ S*). In Japanese, the marker *nai* is normally placed at the end of the utterance (*S + Neg.*).

No hat. *No go to sleep !*
Not Daddy. *Nope ! Not oishi ! **
Not cat. *Not Daddy's.*

(utterances produced by Takaaki, late Dec.'92 and late Jan.'93)

* *oishi* , Japanese (='delicious')

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[26] Leopold, *op.cit.*, p.83-4

[27] Steinberg, *op.cit.*, p.156 (research on negation conducted by Klima and Bellugi (1966)). Littlewood, *op.cit.*, p.12 (research on interrogation conducted by U.Bellugi-Klima (1968)).

[28] Pye, *op.cit.*, p.129.

Takaaki appeared to produce quite correct negative forms in Japanese from the first, as might be expected these seem, from later evidence, to have been mechanical imitations, with no fundamental understanding of the rule for negation. "Chose paradoxale, ce sont les fautes qui temoignent de la possession - incomplète - des lois de la langue." ("Paradoxically, it is errors which bear witness to the possession - albeit incomplete - of the rules of language." - Guillaume (1927)).[29] His later productions, in early January '93 follow the first stage *S + Neg.* pattern, but is is *dame* he uses not the expected *nai*.

*You baka dame ! **

*Takaaki Mummy coughing dame. ** (Not clear whether this expressed command or personal feeling, 'I don't like M to cough.')

He seemed to move into the second stage in late January, at the age of 22 months, with negation markers appearing within the utterance. Here, Japanese seems to be progressing ahead of English, with some patterns being acquired imitatively from the television as they come within range of his $i + 1$, and i (where i is his current acquired competence and $+1$ indicates the following stage in some natural order), I believe.[30] *Don't* is still used as an unanalyzed single word at this stage, according to Klima and Bellugi. They interpret *can't* in the same way.

Don't dirty. *Oishikikunai.*

Baka ja nai you !

Nonde nai you ! *Tabenai.*

By early February, I think it is possible that some third stage production was beginning in Japanese, but not matched by anything similar in English.

Konna-ni tabenai. *Neneko shinaide !* (Negative imperative)

Third stage negation is close to complete mastery, in English *be* and *will* appear

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[29] Quoted in Leopold *op.cit.*, Vol.3, p.79.

[30] Krashen S.D. and T.D.Terrell,(1983), *The Natural Approach* , p.32.

with negation, and negative imperatives are correctly formed with *do*. Some errors usually still occur in assigning the tense marking to the auxiliary only.

It is regrettable that I have little data from which to draw conclusions at this point, but at least what I do have does not contradict Klima and Bellugi's findings. I should like to know whether the *dame* for *nai* susbstitution is common for monolingual Japanese children acquiring negation, at the stage it appeared in Takaaki's speech. Leopold found that his daughter first produced negatives in English, in the form of *Don't* , at around 23 months, in combination with German verbs. He believes this was the first negative form produced because it was functionally important and phonetically impressive. It also had strong emotional associations, a point he makes only very indirectly. [31] There is certainly a great deal of individual variation in this acquisition: of the three children studied by Klima and Bellugi, one reached stage three at about two years old, the other two not until they were three and a half.

Interrogation is somewhat less well-documented across languages, but for English it can, again, be divided into roughly three stages, or perhaps four. [32] Children seem to begin simply, with intonation only as a marker of questions. Later, they acquire the ability to handle subject-verb inversion (as in yes/no questions), or to prepose a question word (as in wh- questions), but can still not manage both at once. So, in wh- questions, the question word is simply placed at the front of the statement, (as in *Why Mummy eating ? Where Daddy go ?*). In the third stage, both these transformations can be managed simultaneously, although inversion may still not take place if the sentence is also negated, (as in *Why he didn't come ?*). Finally this, too, will be within the child's acquired competence.

Certainly Takaaki began forming questions using intonation quite early in his

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[31] Leopold, *op.cit.*, p.95. Also, this paper (p.7-8) on emotion and word-meaning.

[32] Littlewood, *op.cit.*, p.12. The source of the data is U.Bellugi-Klima (1968).

speech production, at around 18 months, in both languages. In the case of Japanese, there are particles which act as interrrogative markers, *ne* (and its vulgar form *na*) and *ka*. They are sentence-final particles, which obviously makes them quite prominent, especially as they follow or carry the rising question intonation. *Ne* is often emphatic. In other words, it fulfils both of Steinberg's criteria for early acquisition - it has *sound change noticeability* and *referentiality*[33]. This latter "concerns the degree to which it is obvious that the language item refers to an object, event, or situation in the world." - its meaningfulness. *Ne* was in fairly frequent use in Takaaki's speech from the time he was 18½ months old. Many grammatically accurate Japanese interrogative utterances can be formed simply by the addition of *ne ?*, as it can be used like an English tag question ending, with the added bonus that there are no awkward subject-verb agreements to be thought of. So, he had another motive for using it, and using it rather than other forms - ease.

Masui na ? (Aug.31,'92) *Baachan umai, ne ?* (Sept.24,'92)

Baachan kuru na ? (Sept.1,'92) *Tabenai baby, ne ?* (Oct.4,'92)

Real fa-injin, ne ? * (Sept.23,'92 - an interesting attempt to create a tag question in English)

He shows no sign of producing wh- questions in English yet, with the exception of, *What this ?* on October 17, '92 and several times afterwards. He began to ask the same in Japanese at almost exactly the same time, on October 13th actually, but has continued to ask *Nani kore ?* *Where* questions are asked only in Japanese, starting some time before Christmas 1992, probably as the result of being read a short story book in which the question ... *Santa wa doko ni iru no ka na ?* [34] is pivotal to the story. While we were in England, Takaaki was very upset at not being able to see his grand-

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[33] Steinberg, *op.cit.*, p.154.

[34] Y.Otomo & S.Kiyono,(1978), *Nontan ! Santa Kuro-su da yo* . Tokyo: Kaisei-sha. (*Nontan ! It's Santa Claus !*)

mother, and frequently posed the question *Baachan doko ?*. He obtained no very satisfactory answer, from his point of view, I suppose, and startled us one early morning by sitting up in bed and asking plaintively of the dark *Baachan doko ni iru no ?*

His comprehension of these questions in English seems to be well-developed, they are a common feature of his daily life and it may be that he will soon be producing them. He does use a variety of questions in Japanese, and it will be interesting to observe any transfer in English acquisition.

Nan de ?	(='What for ?')	*Kore dare ?*	(='Who's this ?')
Do-shite ?	(='Why ?')	*Nani suru (no) ?*	(='What are you doing ?') *
Daddy doko ?	(='Where's Daddy ?')	*Doko iku no ?*	(='Where're you/we going ?')

*In the sense of 'What are your intentions ?'

Baachan wa konakatta, ne ? ('Grandma hasn't come, has she ?') did appear on October 8, '92, but it was a relatively isolated occurrence and so I cannot be sure whether this is due to the fact that final stage interrogatives are likely to occur earlier in Japanese, or whether this is the result of mechanical imitation, which seems more probable.

Pronominalization on the other hand, would seem to be developing in both languages, almost simultaneously, with English lagging a little behind Japanese perhaps. Baker and Greenfield (1988) relate children's use of pronouns to the idea that they tend to verbalize only new information at first and only include old information in their utterances as they get older. They mention that research has shown there to be a developmental trend toward more pronominalization as a child grows older[35]. As pronouns clearly mark the given information in a sentence, (apart from cases of cataphoric reference, which need not concern us here), and younger children omit this in favour of the new, it seems perfectly reasonable to follow their argument that pronouns will not

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[35] Baker and Greenfield, (1988), "The Development of New and Old Information in Children's Early Language", *Language Science* , Vol.10, No.1, p.12-13.

be used extensively until the child has become aware of the need to verbalize the topic of the sentence. Another point they make, which appears to have a bearing on Takaaki's case, is that pronouns are inherently complicated from the child's point of view because of shifting reference. This means that the 'name' does not always go with the person or thing designated; it 'shifts' according to who is speaking. *I* refers to the speaker, for example, but the same person will be referred to as *you* when spoken to. The pronouns *he* , *she* , and *they* tend to shift even more than these two. There are further complications in Japanese, which has several first and second person pronouns to indicate levels of respect, humility, or familiarity, and in which adults tend to refer to small boys familiarly as *'boku'* ('I') ! Shifting would seem to account for the fact that children tend to refer to themselves as 'you' for quite a long time before using 'I' or 'me', and which Takaaki does in both languages. (If we also consider that pronouns can be, and often are, omitted in many cases in Japanese, it is possible that his production in that language is here influenced by English. It might, on the other hand, simply indicate that he has not yet acquired the rules governing such omission.)

His first pronouns were demonstratives, *kochi*, *kore*, *this (one)* and *that* . These were all produced initially in October 1992 (17½-18 months in age), although the latter disappeared after its first introduction not to re-appear for more than two months. November saw the emergence of *it* in many utterances, and personal pronouns were first produced in December. During this month, he referred to himself as 'him', 'me', and *'boku'* in Japanese. In most cases these appeared correct, but were imitative productions as he later (January '93 on) called himself 'you' and the Japanese equivalent *'omae'*, (a familiar, even vulgar, form of the more standard *anata* - which would only be used to him by strangers. He would be addressed by family as *'boku'* or by name. I believe his father and, occasionally, his grandmother call him *'omae'*, a fact they regret now that his production of it in the presence of strangers, who do not realise he is referring to himself and not to them, embarrasses them.)

It is interesting to note that Leopold found few pronouns in his daughter's speech at the end of her second year, whereas Takaaki may use few in terms of variety of forms, but he uses them frequently.

Kore zou. (Oct.7,'92)

Kore beauful,ne ? "(Oct.8,'92)

This one kappa. Turtle kochi." (Oct.13,'92)

Baby bird. In that. (Oct.30,'92)

Found it ! (Nov.3,'92)

'Nother one. Peel it. (Nov.12,'92)

Boku kawaiso. Carry him. (Dec.8,'92)

Me 'n Mummy. (Dec.11,'92)

You baka, ne ? " (Jan.7,'93)

That ('s) dirty. (Jan.16,'93)

Omae bakanai ! (Feb.7,'93)

Omae bakakunai ! (Produced following Mother's correction, *Boku* not *omae.*) [36]

It is quite possible that the October 13,'92 utterance was an attempt to contrast, i.e. "That is the *kappa* , this is a turtle", with imitation of adult stress patterns as this would have been an appropriate response in the context, (see table 2 (vm)), and seemed to be what he wanted to communicate. There was perhaps confusion in his use of pronouns in a case like this because he was dealing with two languages which were still not distinct for him. These early instances of demonstrative pronouns all occur in similar discourse contexts, where it would be reasonable to conclude that Takaaki was beginning to feel the need to mark the subject/topic more clearly, or at least to focus his hearer's attention more closely on the new information in his utterances. *Kore zou*, for example, occurred while we were looking at animal pictures in a book, naming them one after another so that he may have wished to make quite sure I understood which one he was referring to. His progress in this area seems to

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[36] This dialogue may more properly come under "Effect of Instruction or Correction", p.8ff., but it occurred very recently and seemed more closely related to pronominalization. This particular correction has been made many times since, with as much success, providing fairly clear evidence of the state of his progress in acquiring this particular rule.

support the Baker and Greenfield findings.

Conclusions

Although I feel that I spent less time than I might have done on Takaaki's vocabulary acquisition, I do not think that a longer discussion would have added much more than a longer list of examples supporting the fact that his early lexicon was "heavily weighted toward dynamic objects", and away from stationary, noiseless objects, [37] and that it developed in direct proportion to his interests or needs, *as perceived by him*. (I have quoted his interest in automobiles and animals as examples of this). From my observation of his learning of both vocabulary and grammatical forms, the principle of meaningfulness as a prime motivator of acquisition seems to be sound.

I was able to observe, first hand, evidence of the child's progress in acquiring his first language according to an "inner timetable" in our experiences with instruction and correction. There appear to be natural sequences of acquisition for syntactical features of language, and overt attempts to influence these are largely ineffectual, although it is possible that by giving intensive practice in a form that the child is apparently ready to acquire, (i.e.he begins to produce it spontaneously on occasion), his acquisition may be speeded up. (We did not observe this much in English, but I think it was observable in the acquisition of simple past forms in Japanese, and in the *-tai* verb endings to express desire in that language. Here again though, meaningfulness is also at work.) Takaaki's acquisition of function words and inflectional morphemes in English was mostly in accordance with the order found by Brown, de Villiers and de Villiers and others since them, if one allows for minor individual variations. The only really noticeable divergence from their findings was the different position found for his learning of the regular past tense *-ed*, which I conclude at this stage to have influenced by Japanese acquisition order.

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[37] Baker and Greenfield, *op.cit.*, p.4-5.

Negation, interrogation and *pronominalization* all seem to be developing in more or less the same stages as observed by researchers in these areas, although there is evidence here that Takaaki may be at the crucial stage for bilingualism. His production is becoming preponderantly Japanese, and this is reflected in the fact that he has already begun to use a wide variety of questions in that language, and relatively few in English yet. Negatives, which seemed to develop more rapidly in English at first, are also mostly in Japanese recently. (He has, in fact, made another apparent innovation there recently, by substituting *chigau* for *dame* , (See p. 18.)).

It is true that he is still less than two years old, but it was at this time that Leopold noted that English was beginning to overwhelm German in his daughter's speech. She grew up with good comprehension of German, but her abilities stopped short of true bilingualism since production levels for the two languages were eventually very different. She grew up mainly in America, with her father and some of his friends speaking to her in German. Her mother was American and spoke almost exclusively English to her.

So, in Takaaki's case, it may be that his English speaking capacity is now at risk if he does not have more opportunity to communicate and to learn through English. I try to always speak to him in English, and encourage his father to do so, too, hoping that he does understand more than he is capable of saying and that if we continue to "concentrate on communication, everything else will follow" (Brown:1977).[38]

He does seem to respond more in English if we interact with him more in that language, but there is strong competition recently from Japanese television programmes. We expect him to start kindergarten either next April, at the age of three, or the year after and, of course, language development enters into consideration when we discuss possible choices of school. Culturally, he is mostly Japanese at present; he gives little Japanese bows of the head to accompany *please* and *Thank you*. We think it

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[38] Quoted by T.Terrell, in *Methods That Work*, 1983, J.W.Oller and P.A.Richard-Amato (eds.), p.282-283.

might be beneficial, in terms of English input if not health, if he were to see video recordings of TV programmes for small children in English. His story books are mainly English, and they are what he hears at bedtime, so that is another source of both linguistic and cultural input for him.

Pedagogical Implications

I believe that the research and ideas I have examined briefly are interrelated and have important implications for second or foreign language acquisition and teaching, not only first language acquisition. Natural orders of acquisition have also been observed for learners of English as a second language,[39] although we cannot state clearly what they are exactly. Rather, it can be seen that there is some kind of natural, probably immutable sequence at work, which if we only knew just what it was would make language teaching much easier. It can still be useful to us to be aware of student errors as revealing precisely the same as a child's first language errors do, namely that the student is still in the process of acquiring a particular form or rule. From this perspective, we can accept them and incorporate them into the overall plan for teaching a class, without spending valuable class hours in futile attempts to eradicate a particular error at all costs. Krashen and Terrell's emphasis on error correction through expanded answers which directly imitate the way parents normally deal with their children's mistakes, modelling the correct form instead of just giving it as an overt correction, with the aim of promoting continuous conversation, is usually a sound recommendation. I have, of course, noted that when we attempt to correct or instruct our son at any length the net result is usually that he quickly loses interest in the conversation.

Meaningfulness, so valuable to the child's language learning process, can hardly fail to be important to students of anything, anywhere. Who cannot remember some

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[39] See M.H.Long, (1988), in *Issues in Second Language Acquisition*, L.M.Beebe (ed.), p.116ff.

hated school subject, irrelevant, as far as teenage students were concerned, to anything in the world outside of school and its pointless examinations ? Skilled teachers might overcome this by working into their lessons some means of relating what was being studied to students' daily lives, but this depended so much on the individual. Interest is still often not part of the school curriculum, examinations fulfil the role of motivating students to study. In my own work as a teacher, the need to make learning relevant to the students, meaningful to them so that they will want to learn, seems so basic, especially when we contemplate learning another language, which some students may never see any practical real-life use for, that we have to take it into account. The language which we teach our students in EFL or ESL classes should surely be geared to *their* purposes, and not ours (or the examining body's).

Learner autonomy is regarded almost as anarchy in some circles, and I can understand that young children or teenagers may need clear guidance in their studies, but, after all, every student has some autonomy, some ability to increase or decrease how much he or she learns by being more, or less, willing to learn. I have not heard or read of anyone succeeding in teaching an infant vocabulary that could not possibly be of any interest or use to that child. It may be an old saying, losing appropriateness in modern urban settings, but I have always found it well-suited to the essence of a teacher's work, "You can lead a horse to water, but you cannot make it drink." If we expect our students to learn without interest, without being able to see the point of what they are doing, in personally meaningful terms, this is exactly what we are trying to do.

I shall be experimenting this coming academic year with some forms of limited student autonomy, making student groups responsible for selecting the topics we will cover during the year and preparing and grading quizzes for the whole class, which will form part of their annual assessment. In terms of vocabulary and grammatical forms, too, I think that I should consider more carefully just what I expect my students (two- and four-year women's college students) to actually acquire as

their English competence; the bedrock on which they can build in any future studies or other acquisition situation. We may not know precisely what their natural order of acquiring looks like, but I believe we may reasonably discuss their needs and interests with them and assess probable candidates for early acquisition.

Teaching a language, especially communicative skills, can be a vague and nebulous sort of occupation; any teaching notion which is based in observable 'fact' is bound to be welcome. Communication is not a science, however, and its rules may never be more than minimally understood, it is something human beings do, and do remarkably well in comparison to the rest of the animal kingdom. [40] It is something they do against all the odds, if we consider how a baby extracts words and structures from all that bombard its ears. Perhaps more students would be encouraged by being told this at the very beginning of their language study, and some methods such as the Silent Way may teach it at a subconscious level, that learning any language is a great undertaking involving a whole person, but it is an entirely natural, human *tool* for the purpose of communicating meanings to one another. Errors will occur. Given an encouraging rather than discouraging atmosphere, it is likely they will disappear more readily than if we were to devote hours of study or practice solely to their eradication.

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[40] I owe this information, along with much more that has been extremely useful in writing this paper, to Dr.Steinberg's course. (See Introduction p.1ff.)

* It is also possible that Takaaki's general cognitive development played some part here, in the sense that he was cognitively ready to use such words.

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A ▲ mark next to an entry in the following two tables indicates that a particular instance of speech can be found in Table 2.

Table 1a : Language or Language-related Behaviour Other Than Phrase Production
(14 - 17½ months) (Approximately May 18th - August 31st)

Date/Age	Nature of Behaviour Involved	Context	Semantic Relations Expressed/Implied & Other Comments
14-15 months	Sings simple 'song' - one-word; 'swing' ×10	Swinging on swing pushed + sung to	Imitation of single word, sung five times, to a simple melody, well-sung
▲16 mths	Early adjective use	looking at cars	Pictures and real objects
▲ 16 mths onwards	Emergence of verbs in speech *tabenai* drop/rip/walk/eat/see occurring early on	Being fed Playing Requesting something (see = show)	*tabenai* was at this stage a misunderstanding - he used it for *tabetai* - simply imitating mother asking if he had had enough.
Aug 25	First 'narration'	Reporting an outing to the river to his grandmother	Acting out of his enjoyment of a dip in the river - much noise but little distinguishable as language.

Table 1b : Language or Language-related Behaviour Other Than Phrase Production
(17½ - c.19 months) (Approximately Sept. 1st - October 10th)

Date/Age	Nature of Behaviour Involved	Context	Semantic Relations Expressed/Implied & Other Comments
Sept ▲ 1-15	Emergence of colour words	Various - toys, clothes mainly	Green first, some blue-green confusion, yellow hardest (hello/yellow)
Sept 9	Pronounces 'sh' ending on 'fish' clearly	Eating fish	First time this ending appeared - most simple consonants already
Sept ▲ 8, 11	Instances of narration of past-using language	After:visit to the doctor:calling me	Complained (8th) about pain, (11th) about calling & no-one responding
Mid-Sept onwards▲	Increasing use of two-word phrases	Various	Both quantity of such phrases and the purposes expressed increasing
Sept 21-22 ▲	First use of the forms *tabeta, tabetai*	After eating and wanting to eat	Completed action | Previously used State (respectively) *tabenai*
Sept 23	Use of *mite*	Looking at books, TV etc.	Totally natural and appropriate use of the word to attract attention
Sept 24 ▲	Attempt to express wanting someone else to do something	Wanted grandmother to get into his playpen	Until this always used *hairitai* to express wanting to get in himself
Sept 28 ▲	First, isolated, use of a possessive ' --'s '	Pointing to each person's portion of food at table	Developing awareness of the need to mark possession, up to this point Noun + Noun only - various meanings
Sept 30 Oct 10 Oct 11 ▲	First clear uses of prepositions as such - other uses in Table 2	Indicating location or reporting motion	'in' had occurred as a vocabulary item before, but not with purely prepositional meaning (see Table 2)
Oct 1 ▲	Use of particle *wa*	Insect bite	Regular subject marker being learnt?
Oct 7	First use of pl '-s'	Watching traffic	Regular plural forms being learnt ?

Table 2 (i):Two-word/two-word plus child utterances - July '92 onwards (ie.16 mths onwards)

Date/Age	Two-word/Two-word plus Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
approx. 16 mths	Big car. Meiy car.	This is a big car. (Picture in book) (Riding in car) ⇩ There are many cars.	Inform/ Name Inform	Attribution Attribution
16-16½ months (July '92)	*Baachan ne-ne.* *Jiichan ne-ne.* *Baachan konai?*	Grandma/Grandad is asleep. (Having been told so.) (Expecting her to come) ⇩ Isn't Grandma coming ?	Inform/ Confirm Question	Experiencer-State 〃 Agent-Action;Negation
16½ months	Daddy car.	Daddy is in the car. That is Daddy's car. (Hearing the car engine)	Inform	Location / Possession
Aug 17	Baby hat.	The baby's wearing a hat. (Seeing bonze mascot)	Inform	Experiencer-State-Object (om. ⇧)
Aug 18 (17mths)	Whai dog. Black dog.	This dog is white/black. (Playing with toy dogs)	Name	Attribution
Aug 19	Nappy shor.	Change my nappy and shorts (Changing time)	Request	(Agent)-(Action)-Object
Aug 20 ?	Daddy *kochi.*"	That is Daddy. (Pointing to his father)	Name (Answer)	Equation
Aug 22	Milk 'n *ne-ne.* " ⇧(apparently English)	I want to have milk and go to sleep. (Night, before bed)	Request	Experiencer-State-(both omitted) objects
Aug 23	Playing Daddy. Mum 'n Daddy.	I am playing with Daddy. I am with Mummy and Daddy/ You are my Mummy and Daddy	Answer Inform/ Name	(Agent)-Action-Obj (Exp)-(State)-Obj/ Equation
Aug 26	Clean bench.	This bench is clean. (In children's playground)	Inform	Attribution
Aug 28	Pretty stone.	This stone is pretty. (Picking one up outside)	Inform	Attribution
Aug 29	Done poo. Gone towel. Down bird.	I have done a ---. !Taboo for mature speaker. The towel has gone. (On dropping it in bath) The bird has fallen down the stairs. (Having thrown toy bird)	Warning/ Inform ? Inform Inform	(Agent)-Action-Obj Experiencer-State Exp-(State);Direction (⇧Part omitted)
Aug 31	*Masui na?* (Spoken very loud - to inform everyone)	These (candies) are horrible, aren't they ? (In supermarket - having been told so to prevent him wanting them)	Inform + Warning	Attribution
Sept 1	*Baachan kuru na ?*	Grandma's coming, isn't she? (Impatient - having been told she was coming)	Question Confirm	Agent-Action;Interrogation

Table 2 (ii):Two-word/two-word plus child utterances - Sept '92 onwards (ie. 17½ mths onwards)

Date/Age	Two-word/Two-word plus Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
Sept 3	Dechi ve.	My vest is dirty. (Having been told it was)	Inform	Attribution
Sept 4	Dechi nappy.	My nappy is dirty. (Usual)	Inform	Attribution
	Banji, banji ball !	Bouncy, bouncy ball ! (Playing with ball)	Inform/ Name	Attrib/Exclamation
	Baby towel.	That is my towel. (Pointing to his towel)	Name	Possession
	Baby chair.	I am sitting on the chair. (getting onto a chair)	Answer	Exp-(State)-Object
	Abunai kochi !	This is dangerous ! (Pointing to sharp corner on which he had just banged his head)	Warning	Attribution
Sept 5	Shower, milk 'n *nene* *	I want to have a shower, some milk and go to sleep. (Night- bathtime was delayed;he was sleepy)	Request	Experiencer-State-(both omitted) Objects
	Bath towel.	This is the bath towel. (Carrying his bath towel)	Inform	Equation
Sept 7	Baby goo(d).	(I think)this is good. i.e. I like this. (Eating toast)	Inform + Answer	Exp-(State)-Object
	Green chortsh.	These shorts are green. (Indicating his clothes)	Inform	Attribution
Sept 8	*Jiichan kochi.* (Speech + gesture communication)	The old man (= the doctor) gave me an injection here. (Narration to grandmother, pointing to his left arm.)	Inform/ Complain + Answer	Agent-(Action)-(Object);Location
Sept 9	Ch/Shock 'n ch/shoes	These are socks and shoes. (They were being put on)	Name	Equation
Sept 10	*Baachan ka na?* *Jiichan ka na?*	Is that Granny ? Is it Grandad ? (Hearing sound like a door shutting as he woke up)	Question	Identification/ Equation
	Chodo ii ne?	It's just right isn't it ? (We were discussing the car's air-conditioning)	Inform	(Exp)-State;Modification;Interrogation
Sept 11	Mummy! Baby cry. (Speech + gesture communication)	I called you, Mummy, (and you didn't come.) So, I cried. (I had been busy in the next room. He called Mummy! towards the door I had just come in by and rubbed his eyes for cry)	Inform + Complain	(Agent)-(Action)-Object Agent-Action
Sept 13	Car Daddy go.	Daddy took me out in the car.	Inform	Ag-Act-(Exp);Means
(Cont'd on p. 11)	Car par Daddy go.	Daddy took me to the park in the car.	Answer	Agent-Action-(Exp);Direction;Means

Table 2 (iii):Two-word/two-word plus child utterances - Sept '92 onwards (ie. 17½ mths onwards)

Date/Age	Two-word/Two-word plus Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
Sept 13	*Gojatta nechatta.* "	I fell asleep on the way back. (from the park)	Inform	(Exp)-State;Completion
Sept 14	Going Daddy..park car.	I'm going to the park in the car with Daddy. (On waking up next day, dream ?)	Inform	(Agent)-Action-Location- Means
Sept 15	Colour hello.	It's (the colour) yellow. (Response to my pointing and asking 'What colour..')	Answer	Equation
About mid-Sept	Mummy hand .	This is Mummy's hand. (Touching mother's hand)	Name	Possession
"	Mummy kiss.	I kissed Mummy. (After doing so)	Inform	(Agent)-Action-Obj
"	Mummy chair.	a. That is Mummy's chair. b. Mummy is sitting on the chair. (Pointing to his mother, sitting on a chair)	Name Inform	Possession Exp-(State);Location
Sept 18 (18mths)	Pretty hat. Blue hat.	That hat is pretty. It's a blue hat.	Inform Name	Attribution "
	No hat.	It isn't (really) a hat. (All refer to bathtime-shampoo shield for babies, like wide hat brim only)	Inform	Negation
Sept 19	Warm 'n cozy.	I feel warm and cozy. (In bed , part repetition)	Inform	(Exp)-State
Sept 20	Doggy wee-wee 'n bench	A dog (must have) urinated on this bench. (Mother's explanation of why a bench in the park was wet and so he couldn't sit on it)	Warning	Agent-Action-Obj
Sept 21	Very hot.	This is very hot. (Food at breakfast)	Inform	Attribution
	Piggy bank.	That is a piggy bank. (When told 'baby' was 'piggy')	Name	Equation
Sept 23	*Gohan tabeta.*	I have had lunch. (On hearing Grandma say she had not yet eaten)	Inform	(Agent)-Action-Obj
	Real fa-injin, *ne ?*"	That's a real fire-engine, isn't it ? (Having been told it was, in comparison with the toy one he had at home)	Name/ Confirm	Attribution-Equat; Interrogation
Sept 24	*Baachan umai ne ?*	You're really good (at that), aren't you, Granny ? (She was bouncing a ball)	Praise	Experiencer-State; Interrogation
	Baachan hairitai.	I want you to get in, Granny. (Wanting her to get into his playpen with him)	Request	(Exp)-State-Object

Table 2 (iv):Two-word/two-word plus child utterances - Late Sept '92 onwards (ie. 18 mths +)

Date/Age	Two-word/Two-word plus Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
Sept 27	*Baachan nai ne ?*	Granny's not here, is she ? (At home, grandmother had not come that day)	Question	Experiencer-State; Negation; Interrog.
Sept 28	*Kochi* milk empi.*	This milk carton's empty. (Picking up the one he had just seen me finish; there were two on the table)	Inform / Warn	Experiencer-State
	Apple joosh fidge !	I want apple juice; it's in the fridge ! (Having asked for juice several times without success; this time slapping fridge door)	Request	(Exp)-(State)-Obj; Location
	Daddy's pear. Mummy pear.	That is Daddy's pear, and that's Mummy's pear. (Pointing at each in turn)	Name	Equation
	Car coming.	There's a car coming. (Walking in the road)	Warn	Agent-Action
Sept 29	Daddy *tabetai.**	I want to eat Daddy's toast. (Pointing to his father's piece of toast- the meaning is deduced from him also later pointing to each of our plates or cups in turn, wanting food/drink from each)	Request	(Exp)-State-(Obj); Attribution
	Daddy dance ! (Mother corrects, 'Daddy's dancing.')	Daddy's dancing ! (Father was dancing to amuse him)	Inform	Agent-Action
	Daddy dancing !		Respond/ Inform	Agent-Action
Sept 30	Shorsh *kochi* in. *	The sauce is in there. (Points to cupboard where soy sauce is kept)	Inform	Location
	Baachan gohan tabeta na ?	You've eaten, haven't you, Granny ? (When she came to play with him- perhaps because her usual excuse for leaving was to eat)	Question	Agent-Action; Interrogation
	Jiichan. Baby cried.	The doctor (gave me an injection). I cried. (With actions as he told the story of his bitter experience to his Grandma)	Inform/ Complain	Agent-(Action) Agent-Action
Oct 1	Daddy coming.	Daddy's coming. (Waiting to go out of the house)	Inform	Agent-Action
	Chu leg.	I have two legs. (Ditto)	Name	(Exp)-(State)-Obj; Quantification
	Mother: Yes. Two legs. Two leg.	This is my arm. I have two arms. (Pointing to own body during mini-conversation) (Imitating Dad⇩)		
	M: Two legs. Two arms. Baby arm. Two arm. Hungry wolf.	I'm hungry like a wolf.	Name	Equatn/Possession (Exp)-State-Compar

Table 2 (v):Two-word/two-word plus child utterances - Oct '92 onwards (ie. 18½ mths +)

Date/Age	Two-word/Two-word plus Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
Oct 2	*Moshi wa* reg. "	The insect bit me on the leg. (Bitten by mosquito- l/r confusion Japanese ?)	Inform	Agent-(Act);Locat.
	Moshi wa kochi. Baby face. "	The insect bit me here, on my face.	Inform	Agent-(Act);Locat. Locat.
	Gohan tabetai. Baachan tabetai. Jiichan tabetai.	I'm hungry. Granny's hungry and Grandad wants to have his lunch. (Reproduction of Grandma's explanation of why she was leaving him.)	Inform	(Exp)-State. Exp-State. Exp-State.
	Terebi watching.	I'm watching television.		(Agent)-Action-Obj
	Daddy watching. Baby watching.	Daddy's watching and I'm watching with him.	Inform	Agent-Action. Agent -Action
	Baby dance.	I'm dancing. (He was bouncing and dancing on the bed)	Inform	Agent-Action
	Tiger dange.	Tigers are dangerous. (He was imitating one - biting Mummy's throat !)	Warn	Attribution
	Too wet.	It is too wet (to go out.) (His father had explained earlier why he couldn't go out to play)	Inform	Attribution
	Daddy fox.	Daddy gave me the fox. (He had given him a fox toy he was carrying about)	Inform	Agent-(Action)-Obj
Oct 3	Mummy kiss. Daddy kiss.	I kissed Mummy and Daddy. (Having just done so)	Boast ?	(Agent)-Action-Obj
	Apple joosh *ne ?* "	Apple juice, okay ? I want to drink apple juice. The Apple juice is in here. (Going to touch the fridge as he spoke the last line)	Request/ Inform	(Exp)-State-Object Location
	Apple joosh *nomitai.* "			
	Apple joosh *kochi.* "			
	Give Daddy.	Yes. (I'm going to give it to Daddy.) (Carrying some object and being asked, 'Are you going to.....'	Answer	Intention
Oct 4	*Niichan benkyoo.* Walking girl.	The boy next door (lit.= elder brother) is studying.	Inform	Agent-Action(part)
		The girl (His sister) who is walking there told me. (Outside the house, talking to the neighbour's little girl, who explained her brother was not there to play as he was at school)	Inform	Agent-(Action)-(Object);Modification
	Messy toast.	Toast is messy. (Pointing to crumbs on the table as he eats toast)	Inform	Attribution
	Water chu much.	There's too much water. (In the bath)	Warn	Attribution
	Baby dungarees.	I'm wearing dungarees. (Actually + in a photo)	Inform	Exp-(State)-Object

Table 2 (vi): Two-word/two-word plus child utterances - Oct '92 (ie. 18½ mths - 19 mths)

Date/Age	Two-word/Two-word plus Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
Oct 4	Daddy *baka!* Mummy *baka!* "	Daddy's stupid! Mummy's stupid! (We were too busy getting supper ready to play with him.)	Complain	Attribution
	Baby nose *kochi.* Mummy nose. Daddy nose, *ne ?* "	This is my nose. That's Mummy's nose, and that's Daddy's nose, isn't it ? (Pointing to each in turn)	Name & Confirm	Equation/Possession
	Daddy:*Kakko ii ne ?* T:*Kakko ii yo ne ?*	You look super in that, don't you ? Yes I look really super, don't I ? (Referring to his outfit)	Brag/ Answer	(Experiencr)-State Interrogation
	Tabenai baby *ne?* "	Babies can't eat that, can they ? (About a banana. His father had explained this to him, apparently because he wanted it himself.)	Inform/ Confirm	Exp-State-(Object) Interrogation
Oct 5	Mummy *wa* bottom wiping *ne ?* "	You are wiping my bottom, aren't you, Mummy ? (Nappy changing time)	Question	Agent-Action-Obj; Interrogation
	Daddy *wa* singing. "	Daddy is singing. (He was)	Inform	Agent-Action
	Mummy tiger. Daddy tiger. Daddy book read.	Mummy, there's a tiger. Daddy, there's a tiger. Daddy, read me the book. (Showing a book he wanted someone to read to him)	Inform/ Appeal Request	Exp-(State) x 2 Agt-Act-Receiver-Object
	Baby crying. Poor baby.	The baby's crying. Poor baby. (Watching baby on TV)	Inform/ Sympathy	Experiencer-State; Attribution
Oct 6	Mummy Daddy balcony.	I'm with Mummy and Daddy on the balcony. (He was)	Inform	(Exp)-State-Location
Oct 7	*Kore zou.*	This is an elephant. (Pointing at one in a picture)	Name	Equation
	Sunshine beautiful.	The sunshine is beautiful. (Playing in the sun in the room)	Inform	Attribution
	Mummy:Let's walk around here, shall we ? Walking round.	Yes, let's walk around here. (Outside the house)	Answer	(Agent)-Action
	Pretty flower. Pretty stone.	This flower is pretty. This stone is pretty. (Pointing to the flower & picking up the stone)	Inform "	Attribution "
	Baby *wa* poor baby. Chair. "	I am a poor baby. I hurt myself on the chair. (He had actually fallen off the chair & hurt himself)	Inform & Appeal for Sympathy	Equation/Attribution (Exp)-(Act)-Object
Oct 8	Toast *deta.* "	The toast has popped up. (Watching the toaster in action.)	Inform	Agent-Action

Table 2 (vii): Two-word/two-word plus child utterances - Oct '92 (ie. 18½ mths - 19 mths)

Date/Age	Two-word/Two-word plus Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
Oct 8	*Kore* beauful *ne* ? "	It's beautiful isn't it ? (Pointing to lovely scenery on TV)	Inform/ Confirm	Attribution; Interrogation
	Kicking Mummy. Painful.	I kicked Mummy. It hurt her. (After kicking me hard in the face and being told it was painful)	Inform/ Confirm	(Agent)-Actio-Obj (Exp)-State.
	Mummy morning.	Good morning, Mummy. / It's morning, Mummy. (Shortly after waking up)	Greet/ Inform	Salutation/ Equation
	That clean. Thissy clean.	That one is clean. This one is clean. (Pointing at plates on the table)	Inform	Attribution
	Baachan wa konakatta ne ?	Grandma hasn't come, has she ? (She said she would)	Question	Agent-Action;Neg; Interrogation
	Finger sauce ! M:Yes, you've got sauce on your finger. Sauce finger.	I've got sauce on my finger ! (Calling out - he hated to have dirty hands) Correction in word order	Inform	(Exp)-(State)-Obj-Location
	Baby earring too.	I want earrings, too. (He wanted to wear the earrings I was wearing)	Request	Exp-(State)-Object
Oct 9	Walky outside.	I want to go for a walk outside. (Peering through the baby safety gate - perhaps he thought we were going out)	Request	(Exp)-(State)-Obj-Location
	Bus gone.	The bus has gone. (After getting off - which he very much regretted)	Inform/ Complain	Agent-Action
	Pane go ooo! ooo!	A plane went over. (Imitating sound and gesturing to show the trajectory of the plane. Narrated to mother)	Inform	Agent-action; Onomatopoeia
	Finger cut. Finger *kore* chair.	I've cut my finger. I cut it here, on the chair. (Showing how he had caught his finger in a gap in the chair and pinched it)	Inform	(Exp)-Action-Obj (Exp)-(Action)-Obj Location
Oct 10	*Itai ne ? Kawaiso ne ?* Mummy. Daddy *kawaiso ne ?* Finger. "	It hurts, doesn't it ? You are a poor thing, aren't you ? Mummy, Daddy's a poor thing, isn't he ? He's hurt his finger. (Father had been showing mother a cut on his finger and complaining of the pain)	Question Appeal to third person Inform	(Exp)-State;Inter. (Exp)-State;Inter. Exp-State;Interrog (Exp)-(State)-Obj
	Wento par, Daddy.	I went to the park with Daddy. (Narrated to mother)	Inform	(Agt)-Action-Loc
	Baby cry. Eeeee. Poor baby.	I cried, like this. Poor me. (Narrating some event in his day with actions)	Inform & Appeal	Agent-Action Attribution

Table 2 (vii)Two-word/two-word plus child utterances - Mid-Oct '92 (ie. 19 mths+)

Date/Age	Two-word/Two-word plus Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
Oct 11	Truck down there.	The truck has fallen down there. (Looking down from high chair)	Inform	Agent-(Action): Location
	Baby take.	I want to take.	Request	Experiencer-Action
	Mummy: Take what ?	(Seeing mother undress)+⇩		
	Baffy take.	Take a bath.	Answer	(Exp)-Action-Obj
Oct 13	Bring milk there.	Yes. Bring my milk here. (Answering mother's 'Shall I bring your milk here ?'	Answer	(Agent)-Action-Obj Location
	This one *kappa*. Turtle *kochi*.	This one is a *kappa*. The turtle is here. (Bath toys he was playing with. He initially wrongly named the *kappa*, here he really corrects his mistake in response to a query)	Name/ Answer	Equation
	Nani kore ?	What's this ? (Around this date he began to ask about everything, all the time nearly !)	Question	Equation
Oct 14	This pocket.	This is a pocket. (Pointing to his clothes)	Name	Equation
	Baby carry.	I carried this. (Had just put down a basket he had carried from the next room)	Boast ?	Agent-Action-(Obj)
	Mummy *chan*. "	Mummy, dear. (Used with a	Request	
	Daddy *chan*. "	Daddy, dear. wheedling tone, wanting us to do something for him.)	Request	
Oct 15	*Baachan osoi ne?*	Grandma's taking a long time, isn't she ? (She had promised to return after eating, and didn't - as usual, and he noticed.)	Question or Request to Confirm	Experiencer-State; Interrogation
	Mummy *tabetai*."	I want Mummy to eat this. or You want to eat this, don't you, Mummy? (He was offering me raisins he was eating. No question tone.)	Offer/ Inform (His awareness)	(Expr)-State-Agt-Action-(Object) / Experiencer-State-(Object);(Interrogation ?)
	Mummy hidy.	Mummy's hiding. (I was hiding behind a chair, he found me.)	Inform/ Describe	Agent-Action (?)
	Kick door foot.	I am kicking the door with my foot. (He was in the act of doing so.)	Inform/ Describe	(Agent)-Act-Obj-Instrument
	Dekinai.	I can't. (He couldn't take off his jacket by himself)	Inform	(Experiencer)State :Negation
Oct 16	Get down.	I want to get down. (He was climbing out of his high chair.)	Request	(Expr)-(State)-Obj (Object is an Action here)

Table 2 (ix) Longer utterances Mid-October 1992 (i.e. 19 - 19½ months)

Date/Age	Two-word/Two-word plus Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
Oct 17	What this ?	What's this ? (Pointing at his clothes)	Question	Equation;Interrogation
	Dakko baachan omoi ne ?	I'm heavy for Grandma to carry, aren't I ? (She had picked him up, and had been asked if she could manage - we had often told her he was too heavy for her to lift now)	Question /Confirm	Act-Experiencer-State-(Obj);Interrogation
	Dondon baby *abunai ne ?**	It's dangerous for Baby's (my) hands, isn't it ? (Opening sliding window, which he had previously been warned was dangerous) NB dondon is normal baby talk for hands (U.K.)	Question Confirm/ Warn	Object-Possession-State;Interrogatn
Oct 18	Mummy, *dame ne?**	I shouldn't touch, should I, Mummy ? (Catching sight of my necklace on the coffee table near him)	Question /Confirm	(Exp)-State-(Act); Interrogation
	Nonda ! *	(I)'ve drunk it ! (After drinking up a cup of fruit juice)	Inform	(Agent)-Action; Completion-(Obj)
Oct 19	Get out ! Want get out !	(I) want to get out ! (Of his playpen)	Request/ Command	(Exp)-State-Action
Oct 20	*Kaze hiita.*	(You)'ve caught cold. (When I sneezed)	Inform/ Sympathize	(Exp)-State/Action Object;Completion
Oct 22	Finger cut. Mummy 'nip 'nip.	Mummy cut my fingernails. 'Snip snip'. (He said this in bed in the morning. I had cut his nails the night before.)	Inform	Agent-Action-Obj (Completion ?)
	Mother: *Okaasan suki desu ka ?* Takaaki: *Okaasan suki yo!*	M:Do you love Mummy ? T:Yes, I do !(emphatic) (He had been listing people/toys he loved- with one obvious ommission)	Answer/ Inform	
	Mummy *wa* milk *nonda?* *	Do you want some milk, Mummy ? (?) (He was drinking milk and held out his cup to offer me some.)	Question /Offer (Cf. Oct 15)	Exp-State-Action-Object * Mistaken use of past for 'want to'
Oct 24	Water. Water, *ne*? Water 'n baffy *ne*? Gone. *	Water. That's the water, isn't it ? the water in the bath ? Emptying. (He was outside the bathroom, where he could hear the bath emptying.)	Question /Confirm /Inform	Equation;Interrogation Equation-location; Interrogation State
Oct 26	*Dekinai* baby *ne?* *	Babies can't do it, can they ? (Carry toy on head)	Question /Confirm	Exp-State;Interrogation

Table 2 (x) Longer utterances October/November 1992 (i.e. 19½ months +)

Date/Age	Two-word/Two-word plus Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
Oct 26	This one woodpecker.	This(one)is a woodpecker. (Pointing at picture in a book I was reading to him)	Inform	Equation
	Baby bang face.	You Knocked my face. (I knocked his face with my glasses when I bent to take his shoes off.)	Inform/ Complain	Agent-Action-Obj (He mistakenly made himself the agent here)
Oct 27	Newspaper 'n the tree. Newspaper.	There's a newspaper in the tree. (Pointing to a kite stuck in a tree.)	Inform	Obj-State-Location
Oct 28	T:Daddy. *Iku! Iku!* D:Where to ? T:₂ *Koko de!* "	T:Daddy. Come! Come! (D:.) T:₂ Here ! (Leading his father into the kitchen and pointing at a cup he wanted from the cupboard.)	Request/ Command Answer	Imperative Location
	Kore sugoi, ne ?	He's really strong, isn't he ? (Referring to a TV cartoon character, while watching)	Question /Confirm /Inform?	Exp-State;Interro-gation
	T: More ! D: More what ? T:₂ More te'evision. *Doragomuboru.* "	T:₂ I still want to watch television. 'Dragonballs'. (When the programme had finished and we switched off.)	Request Answer	(Exp)-(State)-Obj
Oct 30	T: Baby bird. In that. M: Where ? In the tree ? T:₂ In the tree. Mummy bird, baby bird. T:₃ Daddy! Daddy come inside.	T: There's a baby bird in that. T:₂ In the tree. There's a Mummy bird and a baby bird. (Sitting, looking out at trees outside) T:₃ Daddy ! Daddy's come back. (Hearing the car back into the garage below - 'inside' the same building.)	Inform Answer Inform Inform	Object-(State)-Loc Object-(State)-Loc Agent-Action-Loc
Nov 2	Cuppa tea.	A cup of tea. (I had just said 'Let's have a cup of tea.' Takaaki went into the kitchen and pointed at the teacups etc.)	Request ? Verify	Equation (?)
Nov 3	Dummy ! Dummy ! (Pause) Found it !	(I want my) dummy! Where's my dummy? (Pause) I've found it ! (Running in and out of the rooms, and finally locating it on the table.)	Request Inform	Obj-(Exp)-(State) (Agt)-Action-Obj
Nov 4	Daddy toast this one. Big. Daddy toast big.	This is Daddy's toast. It's big. (Holding up 2 pieces)	Inform	Equation-Possessn Attribution

Table 2 (x i) Longer Utterances November 1992 (about 20 months old)

Date/Age	Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
Nov 5	Fish inna water.	There's a fish in the water. (Seeing a goldfish in a tank on TV)	Inform	Object-(State)-Loc
	Daddy *chan*! More cottage cheese ! "	Daddy ! I want some more cottage cheese ! (Calling across the kitchen to his father.)	Request	(Exp)-(State)-Obj
Nov 6	*Baachan kozou !*	(I'm) Granny's boy ! (He was delighted with this description of himself and repeated it a lot)	Name/ Praise ? (Self)	Attribution
Nov 7	Pu di hon.	(I want to) put it on. (He was pointing at his hat)	Request	(Exp)-(State)-Act-Object
Nov 10	T: Doggy. M: Which one? The black one, white one, brown one ? T:$_2$ *Kochi*. Black one! White one! Brown one!	T: Give me the doggy. (Pointing at toy dogs) T:$_2$ This one. The black one ! The white one ! The brown one ! (Demanding them one after another, and putting them in a cup.)	Request Answer Demand/ Command	(Action)-Object; Imperative Identification Object-Attribution ;Imperative
	Black one *hairanai ne?* "	The black one won't go in, will it ?	Question /Confirm	Object-State:Neg; Interrogation
Nov 11	Hitchuck. Thomas tank engine.	Thomas the tank engine hit the truck. (Toys he was playing with)	Inform	Agent-Action-Obj
Nov 1 ~	Increasing number of instances of use of regular ' -s' plural marker.	Appropriate contexts - e.g Socks 'n shoes. (When I was putting them on him.) Toys. (Wanting to play with them.)	Request/ Inform (Mostly)	
Nov 12	This one onji. Mummy giving.	This one is orange. I'm giving it to Mummy. (Picking out and giving me an orange crayon. I was teaching him the colours using the formula 'This one is '	Inform	Attribution (Agent)-Act-(Obj)-Receiver;Non-completion
	Baby burped.	I burped. (A mature speaker would probably not refer to his own lack of good manners while eating)		Agent-Act:Completion
	T: Mummy peed it. M: Do you want another one ? T: 'Nother one. Peel it.	Mummy peeled it. (Tangerine he was eating.) Yes. I want another one. Peel it for me, please.	Inform Answer ↗ Request	Agnt-Act-Obj:Compl (Exp)-(State)-Obj: Affirmation Act-Obj:Imperative
Nov 13	Mummy ged i pen.	Mummy, get in the pen. (Wanted me to get in his playpen with him.)	Request/ Command	Object-Action-Loc: Imperative

Table 2 (x ii) Longer Utterances November 1992 (about 20 months old)

Date/Age	Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
Nov 14	T:Pen. D:Do you want to get in the pen ? T:Ged inna pen. *Oshi* " Baby tripped.	Pen. I want to get in the pen. (Leaning on it, perhaps trying to reach toys) (I have interpreted the last word as a misuse of *Hoshi* for 'want to'. I tripped. (Stumbled)	Request Inform	(Exp)-State-Loc Exp-Act;Completion
Nov 16	Daddy 'bye-'bye. Sit in chair. D: Where's your dump truck ? T:Over there. D: Where ? T:Inna bedroom. Mummy on top.	Daddy, sit in the chair and go to sleep. (Pointing to an armchair and telling his father to go and sit i in it, from his playpen.) Over there. (Vaguely waving an arm as pointer) In the bedroom. I'm putting it on top of Mummy's head. (Trying to put a bean bag toy on my head.)	Suggest/ Command Answer Answer Inform	Agent-Action-Loc; Imperative (?) Location Location (Agent)-(Action)-Experiencer-(Obj)-Location
Nov 20	Apple joosh i(s) dere, onna table. T:T-shirt drawer. In there. M:The T-shirt's in the drawer. T:T-shirt in (the) drawer. Squirrel jumped.	My apple juice is there, on the table. (Pointing at his cup on the table.) The T-shirt's in the drawer. (Watching as I put his clothes away in the drawers.-Interesting early instance of him correcting an utterance in accordance with a model presented.) The squirrel jumped. (Watching a nature programme on TV)	Inform Inform	Location (Rare almost complete grammatical sentence.) Location Agent-Action;Completion
Nov 24	D: What's your name ? T: Takaaki. D:*O-namae wa nandesu ka?* T:*Takaaki.*	Takaaki . (His name, in response to being asked the same question in English and Japanese.	Answer Answer	Self Identification x 2
Nov 25	Fish jumped.....inna water.	The fish jumped in the water. (Apparently narrating something seen on TV)	Inform	Agent-Action-Loc.
Nov 28	*O-sara ichi-mai.*	This is one plate. (Putting a round straw pot stand on the table)	Inform	Enumeration

Table 2 (x iii) Longer Utterances December 1992 (about 21 months old)

Date/Age	Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
Dec 1	M:Nice car. T:Nice car. Faari. M:Oh, a Ferrari ! T:*Kakko ii ne ?* M:Mm. *Kakko ii desho.* T:*Baachan* gave it. M:No, she didn't. Your Daddy gave it to you. T:Daddy gave it.	(1st long coherent dialog) Yes, it's a nice car. It's a Ferrari. Smashing-looking, isn't it? Grandma gave it to me. (Looking at toy pedal car he had been playing in) Daddy gave it to me.	Agree/ Inform Inform/ Confirm Inform Accept correct-ion	Attribution & Naming Attribution & Interrogation Agent-Action- Obj Agent-Action- Obj
Dec 2	Baby going fags.	I'm going to smoke. (With cigarettes and lighter in his hands, after watching a relative smoking! He had heard cigarettes referred to disparagingly as 'fags' on several occasions.)	Inform	Agnt-(Action)-Obj; Intention
Dec 4	*Boku*	I/Me (Repeated several times, pointing at himself. Isolated use - tends hereafter to refer to himself as *Omae* . 'You'.)		Self-identification
Dec 8	T:*Kaiwaiso ne?* M:*Dare ?* T:*Kaiwaiso.* M:*Dare ga kawaiso ?* T:*Boku kawaiso*. Carry him.	Poor thing, isn't he/she ? (Who ?) Poor thing. (Who's a poor thing ?) I'm a poor thing. Carry me. (Walking in the park, he got too tired to go on. He corrected his initial mis-pronunciation *Kaiwaiso* to the correct *Kawaiso* , in imitation of my model.)	Appeal 〃 Answer & Request	State-(Exp);Inter-rogation State-(Exp) State-Experiencer Imperative;Object
Dec 11	Swings. Me 'n Mummy.	I'm going to go on the swings, with Mummy. (On the way to the playground.)	Inform/ Rejoice	Agents-(Act)-Loc/ Object (to the swings/on the swings ?)
Dec 12	M:What are you eating ? Aromatics. Daddy gave it.	An 'Aromatic'. Daddy gave me it. (Name of candy)	Answer Inform	Identification Agent-Action-Obj
Dec 13	D:*Omae kawai ne ?* T:*Kawai ne, boku wa ?* Thank you, Daddy.	D:You're pretty, aren't you ? T:Yes. I'm pretty, aren't I ? (No context noted) Same. (On having his nappy changed.)	Agree/ Confirm Thank	Attribution-Obj; Interrogation Appreciation
Dec 14	D:One, two, three, T:Five. D:Four, five, six, T:Seven. D:You must be joking ! →	↔D:Eight. T:Nine. D:Ten ! (Father was very surprised he could follow up to ten)		Counting (Number sequence only, no objects)

Table 2 (xiv) Longer Utterances December 1992 - January 1993 (21½-22 months old)

Date/Age	Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
Dec 20	Painful! Tummy painful ! Your hand painful !	It hurts! My tummy hurts ! You are hurting it with your hand ! (I was rubbing his stomach, because it hurt and didn't realise I was rubbing too hard.)	Inform / Complain	(Exp)-State (Exp)-Localization -State (Agent)-Act-(Obj)-Instrument
Dec 20+	Not Daddy.	It's not Daddy's seat. (Climbing onto the chair his father was going to sit on, and pushing him away.)	Inform/ Object	(Obj)-Possession; Negation
	Not Cat. Dog. (Etc.)	It's not a cat. It's a dog. (Pointing at a picture in a book he was looking at)	Inform/ Correct ?	Equation;Negation (More and more frequent instances of negation from this time on - in both languages - see next entry)
Jan 1-3	T:Daddy *baka!* D:You're *baka!* T:You *baka dame !*	Daddy's stupid ! D:You're stupid ! I'm not stupid ! (Father wouldn't play with him because he was busy.)	Inform/ Complain Refute	Experiencer-State Exp-State;Negation
Jan 7	*Baka ne ? Baka mitai ne?* You *baka ne ?*	Stupid, isn't it? It looks stupid, doesn't it? I'm stupid, aren't I ? (Having just been told off for clenching his teeth and shaking with rage - cause unknown, possibly related to teething or frustration at lack of exercise. He was scolded by me in English, but recalled his father's Japanese comments on this same behaviour.)	Reconfirm (& Agree ?)	Attribution;Interrogation x 2 Exp-State;Interrogation
Early January	Expansion in many areas of syntax, vocabulary and comprehension, especially in English - possibly as a result of a Christmas visit to the UK.			
Jan 10	*O-sarusan* ride on giraffe. "	The monkey is riding on the giraffe. (An event he had never seen, but imagined after visits to the zoo in England and Japan. He had probably heard of people/other animals riding on horses or elephants)	Inform	Agent-Action-Obj.
	Auntie Beryl gave it.	Auntie Beryl gave it to me (Toy we were playing with)	Inform	Agent-Action-Obj

Tables 2 (x v): Longer Utterances January 1993 (ie. about 22 months)

Date/Age	Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
Jan 15	Yours Bed.	My bed. (Meaning he wanted to sleep in his own bed, which we had just bought)	Insist	(Exp)-(State)-Loc-Possession
Jan 16	Time to wake up ?	Is it time to wake/get up? (Sitting up in bed when he noticed I got up)	Question	State:Interrogation
	M:Go and tell Daddy to wake up.			
	T:Daddy ! Daddy ! Wake up ! Wake up !	Same. (I spoke to him in the kitchen.he ran through to his father in bed)	Convey Message	Imperative (Direct command from indirect)
	Daddy ! *Abunai !*	Daddy ! Look out ! (It literally means 'It's dangerous', his father had just begun to accelerate to overtake the car in front)	Warn	State:Imperative (implied)
	Takaaki reading a book.	I'm reading a book. (Well, he was looking at one)	Inform/ Brag	Agent-Action-Obj; Incompletion
	M:Would you like a biscuit ?			
	T:Takaaki watching *Anpanman*. Sshh.	I'm watching 'Anpanman'. Sshh. (Said with finger to his lips. It was his great favourite - an animation)	Inform/ Warn	Agent-Action-Obj; Incompletion; Imperative (implied)
	That'(s) dirty. Got wee-wee on it.	They're dirty. I wet on them. (Pointing at wet clothes which had been taken off)	Inform/ Warn	Attribution Object-State; Imperative (implied) (He didn't want to wear the clothes)
Jan 19	Don' piw. dear. Messy. *Gomi tsuite.*	Don't spill it,dear. It'll be messy. You'll make the floor dirty. (Sitting in high chair with food/drink in front of him,and gesturing with hands to indicate 'messy' and the floor)	Warn(himself)	Negation;Imperative Attribution;Anticipation Attribution;Anticipation
Jan 21	No go to sleep !	I won't go to sleep ! (Having been told it was time to go to bed)	Refusal	Negative intention
Jan 22	D:*Takaaki baka !*	Takaaki's stupid ! (Lighthearted teasing)		
	T:*Baka ja nai you !*	I'm not stupid !(Sing-song intonation - 'So there !' suggestion- colloquial)	Refute	Attribution;Negation
Jan 23	D:Apple juice *nonda ?*	Have you drunk your apple juice ? (Language mix !)		Act;Incompletion
	T:*Nonde nai you !*	No, I haven't ! (Intonation etc as Jan 22 above)	Answer	
Jan 24	Mummy poured it in this cup. (Imitating my speech)	(I poured juice for him - in one of 2 cups he used)	Confirm	Agent-Action-Obj; Location

Tables 2 (x vi): Longer Utterances Jan/Feb 1993 (ie. 22½ mths - 23 mths)

Date/Age	Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
Jan 24	M:*Oishi desu ne ?* T:Nope ! Not *oishi.* ♯	Delicious. isn't it ? No, it isn't !(Food he was being fed for breakfast)	Answer & Refute	Attribution: Negation
Jan 25	M:Mm. *Takaaki wa oishi !* T:*Takaaki oishikikunai ! Tabenai !*	Takaaki's delicious ! I'm not delicious ! Don't eat me! (I was pretending to eat him - he was very upset. It is interesting to note the emergence of near-correct negative forms in Japanese)	Refute	Exp-State-Negation Imperative:Negatn
Jan 27	Doughnuts ! M:(Offers half-eaten doughnut) Mummy's *ii you !*	Doughnuts ! (Noticing us eating them) No, thank you. That's yours. (Refusing politely to deprive me of my doughnut)	Rejoice Refusal	Possession; self-denial (?)
Jan 28	Don't dirty. M:No. it's clean. Takaaki cleaned it. Daddy, sit here ! Mummy *kochi suwate !*	It isn't dirty. (?)(He had just licked my face) I cleaned it. Daddy, sit here! Mummy, sit here ! (Pointing to chairs for each of us in turn -interesting language switch)	Inform Inform Command	Attribut:Negation Agent-Action-Obj Imperatives/ Directions
Jan 30	Mummy *daijobu ? Daijobu ka ? Shikari shite. Shikari shite. Takaaki* Mummy coughin' *dame.* ♯	Mummy, are you all right ? Are you all right? Do your best to get better. Do your best. I don't want you to cough. (I was still recovering from a very bad attack of 'flu at New Year and coughing when I woke up)	Question " Request " Inform/ Advice	Experiencer-State: Interrogation (Exp)-State;Intrgn State;Imperative State;Imperative Exp-State-Agent-Action;Negation
Feb 2	*Oishi.* M:Mummy *mo tabete mo ii? Oishi kara tabete ii you !*	Nice. (Eating 'mushi-pan') Can Mummy have some, too ? It's nice, so you can have some. (This steamed sponge cake was one of his favourite foods, so it was a bit surprising that he agreed to share it)	Inform Agree	Attribution State:Conjunction (Exp)-State-Action
Feb 6	Not Daddy's ! Takaaki's chair ! *Neneko shinaide !* Wake up !	It's not Daddy's chair ! It's mine ! (Pushing his father off the chair he was sitting on to claim it for himself) Don't go to sleep ! Wake up ! (We were all in bed - everyone but Takaaki was falling asleep)	Inform/ Protest Command/ Protest	Negation: Possession Imperative:Negatn Imperative

Tables 2 (xvii): Longer Utterances February 1993 (ie. up to about 23 months

Date/Age	Utterance	Context and Probable (Eng) Mature Speaker Equivalent	Probable Purpose	Semantic Relations Expressed/Implied
Feb 7	Mummy *baka !* M: You're *baka.* *Omae bakanai.* M: *Boku* not *omae.* *Omae bakakunai.*	Mummy's stupid ! You're stupid. You're not[1] stupid. (= I) It should be 'I', not 'you'. You're not[2] stupid. (= I) (He couldn't do something he wanted to - interesting misformation of negative in Japanese. 2 different wrong forms)	Protest Refute Refute	Experiencer-State Experiencer-State; Negation Experiencer-State; Negation (Similar patterns of pronominalization observed in both languages)
Feb 8	D: Look. Takaaki! A pigeon ! *Itte miyou !* Mummy. *Itte miyou ! Asoko itte miyou !*	(The bird flew away almost at once. Takaaki ran after it - at least he ran in the direction of its flight) Let's go and see ! Mummy. let's go and see !Let's go and see over there !	 Request/ Invite ?	 Imperative (?) " " ; Location
Feb 11	Grandma: *Hai ! Okashi !* *Ara ! Konna-ni !*	Here you are ! Sweets ! Wow ! This many ! (She was in the habit of bringing him little cakes, cookies, or chocolates)	Rejoice/ Thank	Quantification; Appreciation
Feb 13	M: Enough ? Have you had enough, Takaaki ? *Mo ii* Mummy ! *Konna-ni tabenai.*	 Enough, Mummy ! I can't eat this much. (He pushed his breakfast dish away)	 Answer Explain	 State; Completion (Exp)-State-Quant; Negation